

REMARKS

Applicant appreciates the examiner's thorough examination of the application and consideration of the prior art. Reexamination and reconsideration are respectfully requested in view of the preceding amendment and the following remarks.

The examiner has objected to various informalities in the claims, specification and drawings. These informalities have been corrected.

Applicant's invention relates to a highly efficient harvesting machine that facilitates the manual harvesting of citrus and other varieties of tree grown fruits and produce. Conventional harvesting machines such as those shown in the cited references are not optimally efficient and productive. In particular, none employs a first independently operated pair of upper lift arms and a second independently operated pair of lower lift arms. Applicant's four independently operated arms allow simultaneous collection of fruit and produce from various tree heights in a pair of adjacent rows. In addition, applicant's unique gravity feed and/or vacuum assisted conduits and applicant's use of a conveyor to which picked produce is directly transmitted without any intervening water flow or supply, provides for a machine that is much more efficient than any of those employed by the cited art.

The examiner has rejected claims 1 – 5, 8 and 9 under 35 U.S.C. § 102(b) as being anticipated by Cernusco. That reference discloses an apparatus for use in picking fruit such as mangos. This type of fruit is quite susceptible to bruising. Accordingly, the picked fruit is transmitted through a trough that also carries a flow of water for softening the impact of the drop upon the fruit. Indeed, the fruit drops into a fluid reservoir 17 and then floats through the reservoir to a collection conveyor 21. As best depicted in FIG. 4, the Cernusco machine employs only a single pair of conduits.

In contrast to the cited reference, applicant's new claim 10 provides a harvesting machine wherein a first pair of independently operable, selectively extendible and retractable upper level lift arms are pivotally mounted to the chassis proximate respective opposite sides of the chassis such that each upper level lift arm is positioned to correspond with a respective one of the adjacent rows of trees. There is a second pair of independently operable, selectively extendible and retractable intermediate level lift arms pivotally mounted to the chassis proximate respective sides thereof such that each intermediate level lift arm is positioned to correspond with a respective one of the adjacent rows of trees. Each arm in each pair supports proximate a distal end thereof a carrier for holding a person. Each arm is adjustable to position the carrier such that the person in the carrier is able to manually collect fruit from one of the adjacent rows of trees. The first pair of upper level lift arms are for positioning their associated carriers and persons therein so that such persons are able to collect produce from the upper levels of the adjacent rows of trees. The second pair of intermediate level arms are for positioning their associated carriers and persons therein so that such persons are able to collect produce from intermediate levels of the adjacent rows of trees, which intermediate levels are below the upper levels. There are a plurality of conduits, each of which is attached proximate an upper end thereof to a respective carrier such that an entrance of the conduit is accessible to a person in the respective carrier. Each conduit is further attached proximate a lower end thereof to the receptacle. Each conduit transmits fruit deposited into the entrance through the conduit without a flow of water and discharges the fruit into the receptacle.

Under 35 U.S.C. Section 102, anticipation requires that each and every element of the claimed invention be disclosed in a prior art reference. Akzo N.V. v. U.S. International

Trade Commission, 1 USPQ 2nd 1241 (Fed. Cir. 1986). Absence from a cited reference of any element of the claim negates anticipation of that claim by the reference. Kloster Speedsteel AB v. Crucible Inc., 230 USPQ 81 (Fed. Cir. 1986).

Cernusco lacks a number of elements as claimed by applicant. In particular, the cited reference does not include a first pair of independently operable upper level lift arms and a second pair of independently operable intermediate level lift arms, which enable fruit to be simultaneously collected from a pair of upper and a pair of intermediate height levels in the adjacent rows of trees. Cernusco employs only a single pair of lift arms and associated conduits. In addition, Cernusco utilizes a water-assisted flow through the troughs or conduits. Applicant's conduits transmit the fruit in the absence of a water flow. As set forth in applicant's new claim 13, the fruit is transmitted by gravity feed and/or vacuum assist exclusively. Essentially, the fruit is transmitted in a dry and not a wet condition. Cernusco employs a water flow to soften the impact and lessen the damage to fruit such as mangos. Applicant's device is contemplated primarily for collecting citrus such as oranges. The tough skin of most citrus fruit eliminates the need for utilizing an impact softening water flow through the conduits.

Applicant's new claim 12 further provides that the fruit is dropped from the conduit directly onto the conveyor without being transmitted through a supply or reservoir of water. This contrasts directly with Cernusco wherein the fruit floats through a reservoir of water and is picked-up by a conveyor extending through the water reservoir.

Applicant's machine is further differentiated from Cernusco in that it employs a ground level chute that is accessible by a person standing on the ground. Cernusco employs no such chute.

Accordingly, applicant's invention employs elements and features that are totally lacking in Cernusco. For that reason, the cited reference does not anticipate applicant's claims, as amended. Allowance of those claims is therefore respectfully requested.

Claim 6 has been rejected as being unpatentable over Cernusco in view of Daniel. The later reference discloses a cotton harvester wherein the picked cotton is deposited into a conduit from the ground level. However, Daniel completely lacks lift arms as claimed by the applicant. Even if Daniel was combined with Cernusco, such a combination would not achieve the features or advantageous productivity achieved by applicant's device. Daniel certainly does not teach improved productivity and harvesting in connection with fruit bearing trees. Accordingly, the alleged combination does not render applicant's amended claims unpatentable.

The examiner has rejected claim 7 over 35 U.S.C. § 103 as being unpatentable over Cernusco in view of Gerber. Specifically, the examiner contends that Gerber discloses a first pair of upper level arms and a second pair of intermediate level arms. However, applicant respectfully submits that Gerber discloses only a single pair of arms 12 and 14. A pair of buckets are attached to each arm and travel longitudinally upwardly and downwardly along the arm. Even if each boom disclosed by Gerber could be construed as a pair of lift arms, it would certainly not constitute independently operable lift arms as are claimed by applicant. Applicant's new claim 10 requires the use of four pivoting and longitudinally adjustable lift arms, which are operable independently of one another. This provides for significantly improved harvesting

coverage, flexibility, versatility and productivity in connection with citrus harvesting. Such capabilities and benefits are certainly not achieved by Gerber wherein the range of motion of each pair of buckets is restricted and dictated by the movement of a single associated boom. Each bucket does not move on its own independently controlled boom or arm as in applicant's invention. Accordingly, the beneficial results of applicant's machine are not achieved by Gerber.

Each of the examiners objections and rejections has been addressed and traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

Applicants are submitting herewith the request for extension of time in the first month and the extension fee (\$55).

If a telephone conference would help to advance the prosecution of this application, the examiner is invited to telephone the undersigned at (239) 481-0900.

Respectfully submitted,



William E. Noonan
Reg. No 30,668
Post Office Box 07338
Fort Myers, FL 33919

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 18th day of October, 2004.


William E. Noonan

Amendments to the Drawings:

Replace FIG. 4 with the attached drawing that replaces the drawing originally filed in the application.